A. Cover Sheet *(Attach to front of proposal.)*

1. Specify: ☐ agricultural project or ☒ urban project ☒ individual application or ☐ joint application

2. Proposal title—concise but descriptive: Water-Wise Demonstration Landscape

3. Principal applicant—organization or affiliation: The Regents of the University of California

4. Contact—name, title: Carol Berman, Contracts and Grants Coordinator (Administrative)
Chuck Ingels, Environmental Horticulture/Master Gardener Advisor (Technical)

5. Mailing address: University of California, Division of Agriculture and Natural Resources, 1111 Franklin, 6th Floor, Oakland, CA 94607-5200

6. Telephone: (510) 987-0050 (Berman) (916) 875-6913 (Ingels)

7. Fax: (510) 587-6491 (916) 875-6233 (Ingels)

8. E-mail: Carol.Berman@ucop.edu caingels@ucdavis.edu

9. Funds requested—dollar amount: $ 238,513

10. Applicant cost share funds pledged—dollar amount: $ 39,150

11. Duration—(month/year to month/year): July, 2001 to June, 2002

12. State Assembly and Senate districts and Congressional district(s) where the project is to be conducted:
Assembly - District 5
Senate - District 6

13. Location and geographic boundaries of the project: Fair Oaks, CA (northeastern Sacramento Co.)

14. Name and signature of official representing applicant. By signing below, the applicant declares the following:
— the truthfulness of all representations in the proposal;
— the individual signing the form is authorized to submit the application on behalf of the applicant;
— the applicant will comply with contract terms and conditions identified in Section 11 of this PSP.

Carol Berman, Contracts and Grants Coordinator for
The Regents of the University of California
(printed name of applicant)

2/14/01
(date)

Carol Berman
(signature of applicant)

B. Scope of Work

Relevance and Importance

1. Abstract

To address the need for hands-on information on efficient landscape water use, the "Water-Wise Demonstration Landscape" is proposed on a half-acre site within the Fair Oaks Horticulture Center, in Fair Oaks Park, Fair Oaks, CA. The Horticulture Center was established in 1998 to showcase proper selection and care of backyard fruit trees and vine crops and to conduct variety trials on selected backyard vegetables. About 2,000 community residents have attended educational workshops held at the Horticulture Center. The proposed facility will be divided into four separate "backyard" landscapes and three additional demonstration areas. The four major landscapes are meant to represent typical residential yards and will display different designs and plant themes. There will be regularly scheduled tours, workshops and lectures. The facility will also be open to the public and self-guided, with signage used throughout that discusses water-wise landscape plants and practices. The addition of the Water-Wise Demonstration Landscape will further enhance the Horticulture Center's value as a premier horticulture education facility and allow an expansion of the target audience to include not only home gardeners, but also those responsible for maintaining residential and commercial landscapes. The Horticulture Center currently receives substantial press coverage that is sure to increase with the inclusion of the Water-Wise Demonstration Landscape.

2. Statement of Water Issues

Sacramento County is currently undergoing tremendous population growth. The population of Sacramento County was 1.2 million people in 2000 – a 17.3 percent increase since 1990 (Sacto. Area Council of Governments, 200l). This growth is resulting in unprecedented demand for water.

Studies have shown that the use of drought tolerant landscapes can drastically reduce water use compared to traditional landscapes. The East Bay Municipal Utility District compared daily water consumption of 1,040 single-family home front yards and found that water conserving landscapes used 42 percent less water than traditional landscapes (Calif. Dept. of Water Resources, 1993). Another study demonstrated savings of 30 to 80 percent with "xeriscapes" (Denver Water Dept., 1987). According to water use figures kept by the local Northridge Water District on properties with metered landscapes, water savings with drought tolerant landscaping averaged 54 percent – over 72,000 gal. – lower than standard landscapes over a seven-month period. Even with existing high water-use landscapes, many residential landscapes are irrigated at 20 to 40 percent above their evapotranspiration rates (Calif. Dept. of Water Resources, 1984). With at least half of the average household's water used on landscape and turf (Colorado State Univ., 1987; Sunset 1987), there is the potential for huge water savings by using water conserving landscapes.

Currently, most county residents have a very inexpensive and unlimited supply of water that does not encourage conservation, except when they are monitored and fined if water abuse is occurring. The Fair Oaks Water District and other Sacramento County water districts are or will be installing water meters at homes, businesses, and parks in an effort to hold users accountable

for their water use, and ultimately to reduce water use. Until that time, residents need to be shown how water conservation leads to healthier, more attractive and diverse landscapes, while saving water. Once water costs become more of an issue, residents will undoubtedly be demanding the water conserving information that will be readily available by the established Water-Wise Demonstration Landscape.

Sacramento County codes have specific standards for irrigation design, plant selection, and turf use "that avoid excessive water demands." These codes are designed for industrial, commercial, and institutional landscapes; parks and other public recreational areas; multi-family residential common areas and model homes; and county road medians and corridors. Although not the primary target audience, landscape professionals responsible for designing and maintaining the above landscapes would find the information from the demonstration and research aspects of the Water-Wise Demonstration Landscape extremely valuable. The information they glean from the project could result in considerable water savings for the county.

3. Nature, Scope, and Objectives of the Project

Historical Background. The Fair Oaks Horticulture Center is a 1.7-acre parcel located at Fair Oaks Park in Fair Oaks, CA. It started in 1998 as a 5,000 sq. ft. demonstration orchard. The orchard is adjacent to the ¾acre community garden, which was established in 1980 and now has 42 garden plots. In 2000, a table grape demonstration vineyard was planted, and a berry variety block was recently established. A vegetable research area and additional community garden plots were also added.

The Horticulture Center began as a collaborative effort between the University of California Cooperative Extension (UCCE) and the Fair Oaks Recreation and Park District (FORPD). The UCCE Horticulture Advisor (C. Ingels) and over 25 UCCE Master Gardeners established and maintain the plantings and offer extensive training to the public through regularly scheduled workshops and the annual Harvest Day, which is held in August. Since 1998, about 2,000 people have attended various workshops at the center. For more information, see the UCCE Web site: http://cesacramento.ucdavis.edu.

Water-Wise Demonstration Landscape

Efficient use of water in the landscape has become increasingly important with the increase in California's population and a finite water supply. To address the need for sound information on efficient landscape water use for the home gardener, the Water-Wise Demonstration Landscape is proposed on a half-acre site within the Fair Oaks Horticulture Center. This addition will make the center an even more valuable educational facility for residents of Sacramento County, as well as neighboring counties. The landscape will also serve as a facility for conducting scientific research into the latest water efficient systems, materials and methods.

Design and Layout. The Water-Wise Demonstration Landscape will be divided into four separate "backyard" landscapes: 1) California Native Garden, 2) Mediterranean Garden, 3) Meditation Garden, and 4) Common Variety Garden (see attached Master Plan). The four major landscapes are meant to represent typical residential yards and they will display different designs and plant themes. Each of the backyard landscapes will employ and demonstrate the fundamentals of a water efficient landscape, including: planning and design, soil and drainage

improvement, efficient irrigation, water efficient turf grasses, low water-use plants, mulching, and appropriate maintenance. In addition, the edible theme of the horticulture center will continue in the demonstration landscape with the incorporation of water efficient fruit trees, herbs and other edible plants throughout the various "backyards".

The facility will be open to the public at all times and will be self-guided, with extensive signage that discusses water-wise landscape techniques and methods. All circulation paths and workshop areas will conform to the American Disabilities Act, allowing complete public access.

Educational Activities. A variety of simple techniques for saving landscape water will be demonstrated and displayed throughout the demonstration landscape. In particular, several low volume irrigation systems will be used throughout the landscape and their water use monitored. The public will be able to see how to design and implement these systems for themselves through signs, displays and hands-on workshops.

Classes and tours of the demonstration landscape will be led by UCCE Horticulture Advisors and other horticulture professionals, UCCE Master Gardeners, and special interest groups such as college horticulture classes, garden clubs, and landscape and nursery groups. These classes and tours will target both residents and landscape and nursery professionals on a variety of topics related to efficient landscape water use. Water saving maintenance practices will be emphasized through demonstrations and discussions of pruning, watering, fertilizing, aeration and dethatching of lawns, and integrated pest management. Meetings specifically designed to teach the use of the landscape coefficient method of estimating landscape water needs (UC Cooperative Extension et al., 2000) will be conducted for landscape managers. The landscape's lawn areas will be ideal for showing the public how to conduct "water audits" of their lawns using simple techniques like the use of mugs or cans, so they can reduce runoff and grow a healthier, more water efficient lawn. The water conserving practice of “grasscycling” will also be demonstrated. Literature, including plant lists of the water efficient plants used in the landscape, will be provided to the attendees of the workshops and tours.

Collaborative Effort. The Water-Wise Demonstration Landscape is a collaborative effort between UCCE; the Fair Oaks Water District (FOWD); the Fair Oaks Recreation and Park District (FORPD); landscape architects, designers, and contractors; and nursery and irrigation professionals. This demonstration facility, along with other water saving measures, will be part of an agreement between the FORPD and the FOWD to reduce the park water bill by as much as 50 percent, or about $12-15,000 per year. Both agencies have agreed to provide funding for ongoing maintenance of the site. Both agencies also paid the $3,000 cost of the landscape design.

The Horticulture Center is beginning to develop into a major regional attraction for home gardeners wishing to receive the most up-to-date and accurate research-based horticulture information on all aspects of fruit and vegetable management. The addition of the Water-Wise Demonstration Landscape will further enhance the Horticulture Center's value as a premier horticultural education facility, and the target audience will expand to include not only home gardeners, but also those responsible for maintaining residential and commercial landscapes. The Horticulture Center currently receives substantial press coverage that is sure to increase with the inclusion of the Water-Wise Demonstration Landscape.

Project Design and Implementation Team. The design team for this project has some of Sacramento County’s most knowledgeable and experienced landscape professionals who work with water efficient landscapes. Marq Truscott and Celine Livengood of Quadriga Landscape Architecture in Sacramento have been hired as the principal designers for this project. Ms.

Livengood designed the large WEL Demonstration Garden in the Northridge Water District. Another member of the design team is Candace Schuncke, who is a professional landscape designer specializing in water efficient landscapes; she is also a UC Master Gardener.

Other important collaborators include: Mark Hall, a Rainbird representative who was also involved in the development of the Northridge Garden; Tim Crowley, who maintained Northridge Water District's original Xeriscape Garden for over 10 years, was on-site project liaison for Northridge's newest garden, and is now the City of Folsom Water Management Coordinator; Pam Bone, former UCCE Environmental Horticulture Advisor and the producer of a national award winning slide show on water efficient landscapes; and several UCCE Master Gardeners with specialization in water efficient landscapes.

Technical/Scientific Merit, Feasibility, Monitoring, and Assessment

4. Methods, procedures, and facilities.

The purpose of the Water-Wise Demonstration Landscape is to educate the public, as well as residential and commercial landscape managers, of the importance of landscape water conservation, and to demonstrate how they can achieve water savings while still maintaining attractive landscapes. The demonstration landscape facility will be a showcase of both passive and active water conservation methods. Passive techniques for water conservation include:

- Reducing evaporation and artificial irrigation with the use of mulch and proper placement of shade trees
- Using stormwater retention areas to reduce erosion while encouraging replenishment of groundwater
- Highlighting a large selection of low water use plants, including California natives, appropriate to the Central Valley's Mediterranean climate
- Reducing runoff from the site through use of "hardscape" materials that capture water, such as brick on sand patios and walks, and decomposed granite paths

Active techniques for water conservation include:

- Demonstrating how to design low volume sprinkler and drip irrigation systems and quantifying water and cost savings
- Using re-circulating low-flow fountains
- Demonstrating proper pruning techniques for solar regulation and to reduce water use
- Performing water audits on a variety of watering systems in the turf areas

5. Schedule

Complete design with specific plant species – June 2001
Begin installation – September 2001
Complete installation – November 2001
Begin holding workshops – February 2002

6. Monitoring and assessment

The amount of water used in each irrigation zone will be assessed by documenting gallons per hour of the drip emitter system and subsurface system compared to sprinklers and other high volume systems. In addition, we will record the scheduling of each system for the first three years to compare systems and determine appropriate watering levels. Using tensiometers, we will also test soil moisture in both a mulched planted area and bare ground to demonstrate the benefits of mulch.

A primary means of measuring the success of this project will be the recorded attendance levels at workshops, classes, lectures, and tours. A survey of the participants in these activities will be conducted to determine their current knowledge of water efficient landscape techniques and what water conserving practices they currently use. They will be asked to evaluate the educational activity in which they participated and to relate what water conserving landscape practices they plan to implement as a result of the information they received at the Water-Wise Demonstration Landscape. We will also document the number of UCCE and FOWD publications and brochures relating to water efficient landscaping that are mailed, handed out, taken from self-guided tour boxes, or sold.

The implementation of water metering and the certain increase in the cost of water is creating a strong need among local park districts to reduce water use in the landscape, as explained above. Therefore, we also plan to document changes in landscape design and methods at parks in the FORPD as a result of workshops for park landscape planners.

C. Outreach, Community Involvement, and Information Transfer

1. Community Outreach Efforts

We currently have in place many avenues of communication in efforts to reach all community members. All workshops are advertised in the Sacramento Bee, on a weekly radio horticulture program (Fred Hoffman, KSTE 650, Sacramento), on the UCCE Web site, in the Fair Oaks Recreation & Park program guide, at four major home and landscape shows in Sacramento, and in posters placed in nurseries throughout the county. All of these communication avenues will be used to publicize the educational activities at the Water-Wise Demonstration Landscape, with the additional resource of television public service announcements being added. When the demonstration landscape is installed, live television and radio coverage of the Grand Opening Celebration will be recruited. Announcement of demonstration landscape activities will be placed in FOWD and FORPD mailers and in the UCCE Environmental Horticulture newsletter, which goes out to over 1,400 landscape and turf professionals, nurseries and others throughout Sacramento County. Additionally, a concentrated effort will be made to increase participation of minorities and low-income residents in the demonstration landscape activities by specifically targeting these neighborhoods with publicity and other community outreach techniques.

2. Training, Employment, and Capacity Building Potential

The FOHC currently provides hands-on training for over 25 UCCE Master Gardeners and many Sacramento County residents. Master Gardeners provide gardening information to

thousands more people each year through plant clinics, various workshops, and call-in requests for information. With the extended areas and opportunities the Water-Wise Demonstration Landscape will provide, this site has the potential to host large numbers of people and organizations, including school children, garden groups, college students, and many others for similar educational workshops. Two additional organizations that will receive training are FOWD and FORPD staff, as well as staff from other park and water districts. One workshop per year will be devoted to training for park and water district staff.

3. Plan for Disseminating Information

The dissemination of information will occur at workshops held at the site, as well as "Environmental Horticulture Notes" that will be developed by UCCE Master Gardeners and the UCCE Horticulture Advisor. These will be similar to EH Notes produced for workshops relating to home fruit trees, berries and vineyards (see UCCE Sacramento Web site, http://cesacramento.ucdavis.edu). Interpretive signage throughout the site will explain the basis for conservation ideas, the importance of conservation for future water supplies and implementation of these ideas. Information will also be disseminated through the FOWD newsletter, the UCCE Environmental Horticulture newsletter, articles appearing in the Sacramento Bee, and television news and documentary coverage, such as California Heartland.

D. Qualifications of the Applicants and Cooperators, and Establishment of Partnerships

1. Resum■s – See attached resumes

2. Role of External Cooperators

The role of the cooperators in this project is as follows:

- UCCE Horticulture Advisor (Chuck Ingels)
  - Project and Workshop Coordinator
- Fair Oaks Water District
  - Provide water to the site
  - Irrigation consultation
  - Workshop advertising
- Fair Oaks Recreation & Park District
  - Land for the demonstration facility, assistance with irrigation, and tractor and equipment usage
  - Workshop advertising
- Quadriga Landscape Architecture (Marq Truscott and Celine Livengood)
  - Designers and Installation Coordinators
- Co-Designer – Candace Schuncke
  - Plant Selection and Installation Coordination
- UCCE Master Gardeners
  - Workshop coordination and presentations
- Horticulture and Irrigation Advisers (Pam Bone, Tim Crowley, and Mark Hall)

– Plant selection, irrigation technology, design details, etc.

3. Partnerships Developed to Implement the Project

These partnerships are thoroughly discussed in B3 and D2 above.

E. Costs and Benefits

1. Budget Summary and Breakdown

Please see budget page.

2. Budget Justification

To develop a project of this size and scope requires a fair amount of capital inputs. It is a complex project with many aspects. All costs are in line with current standards for landscape supplies and labor.

3. Benefit Summary and Breakdown

a. Quantifiable Outcomes and Benefits (None)

b. Non-Quantifiable Outcomes and Benefits

Although it is not possible to quantify the reduction in urban water use as a result of this project, the level of interest among residents and landscape professionals will show that the project is having an impact. Attendance at workshops and the handouts provided will increase knowledge, and our survey results should test the current knowledge of participants and the effectiveness of the facility and our workshops. The Water-Wise Demonstration Landscape is expected to receive a substantial amount of media attention, including TV news and documentary coverage, articles in local newspapers, and other sources. As a result of this demonstration landscape, there will likely be an overall reduction of water use in landscapes in Sacramento County. Because a portion of the water used in the Sacramento region, any reduction in landscape water use will impact the Delta. However, the amount of reduction is not possible to measure.

From experiences gained with this project and additional research, articles and "Environmental Horticulture Notes" will be written about drought tolerant plant species, cultural practices, and irrigation methods. Other park districts and Sacramento County landscape designers should also benefit from this project. Staff from the FOWD and other water districts will be provided with hands-on training so they can teach residents about water conservation in the landscape.

4. Assessment of Costs and Benefits

Assessment of costs and benefits are not relevant for this project.

References

California Department of Water Resources. 1984. Water Conservation in California. Bulletin 198-84.

California Department of Water Resources. 1993. Water Conservation News, Jan. 1993.

Denver Water Department. 1987. How to Xeriscape. Brochure.

Sacramento Area Council of Governments. 2001. Population statistics from Web site, www.sacog.org.

Sunset. 1987. How Much Water Does Your Lawn Really Need? Special Report.

University of California Cooperative Extension, Calif. Department of Water Resources, and US Bureau of Reclamation. 2000. A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California: The Landscape Coefficient Method and WUCOLS III. 154 pp.

Colorado State University Cooperative Extension. 1987. Xeriscaping: Water Conservation through Creative Landscaping.

REDUCED Budget Summary and Breakdown

- Water Efficient Landscape Demonstration Garden

NOTE:

Knowing that funds may be limited, we have developed this "bare bones" budget, which would help us get starte but would not allow us to complete the project. We would have to submit proposals to other funding sources to complete the demonstration garden.

	Requesting from DWR				Matching Funds	
Item	**Quantity**	**Unit**	**Unit/Cost**	**Item Total**	**Amount**	**Source**
Management						
C. Ingels (salary and benefits)	5% time				2,975	UC
Site Preparation						
Clearing and Grubbing	1	LS	$1,500.00	$1,500		
Ripping (@18" Depth)	1	LS	$600.00	$600		
Grading						
Rough Grading	919	CY	$15.00	$13,785		
Finish Grading	22,700	SF	$0.10	$2,270		
Drainage						
Subsurface Infrastructure	1	LS	$2,000.00	$2,000		
Structures - Entries						
Concrete Seating (Amphitheatre) 1	150	LF	$100.00	$15,000		
Utilities						
Electrical Wiring	1	LS	$6,000.00	$6,000		
Hardscape						
Walkway (Main Circulation) DG	3967	SF	$3.00	$11,901		
Paving (Interior) Patios	1695	SF	$5.00	$8,475		
Planting						
Amendments	15,957	SF	$0.23	$3,670		
Header Board	1,618	SF	$4.00	$6,472		
15 Gallon Trees	17	EA	$125.00		2,125	STF, FORPD
Construction Plans & Specs						
Landscape Architecture	1	LS	$5,000.00	$5,000		
Landscape Design					3,000	FOWD, FORPD
Subtotal				$76,673	8,100	
Contingency (10%)				$7,667		
TOTAL				$84,340		
Indirect Costs @ 10%				$8,434	11,255*	
TOTAL				**$92,774**	**19,355**	

Matching Funds Sources:

STF = Sacramento Tree Foundation

FOWD = Fair Oaks Water District

FORPD = Fair Oaks Recreation & Park District

*UC portion indirect costs @21.3% plus 11.3% waived indirect costs on request from DWR

Budget Summary and Breakdown - Water Efficient Landscape Demonstration Garden

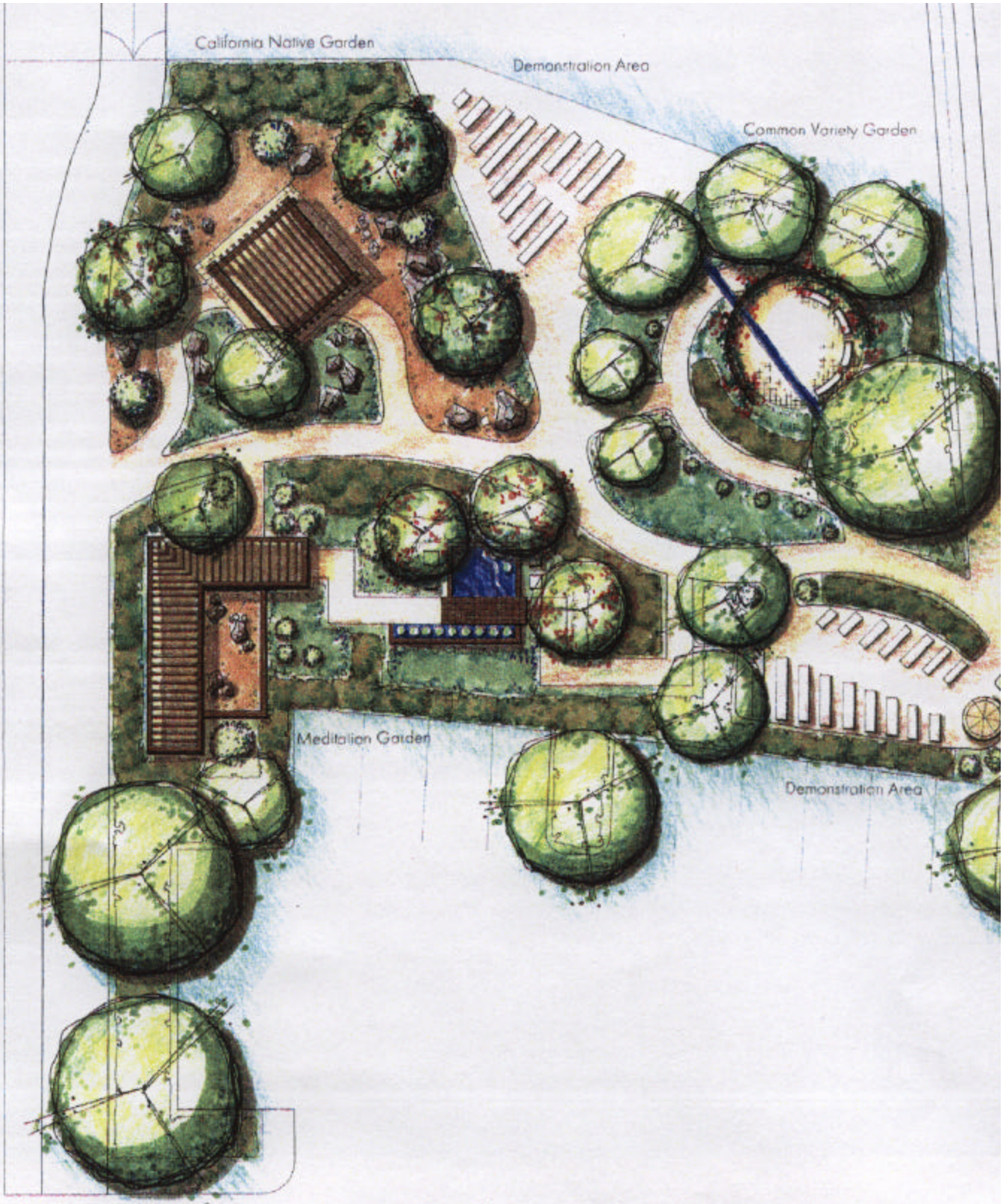
Submittal - Feb. 6, 2001

	Requesting from DWR				Matching Funds	
Item	**Quantity**	**Unit**	**Unit/Cost**	**Item Total**	**Amount**	**Source**
Management						
C. Ingels (salary and benefits)	10%time		$4,959/mo.		5,951	UC
Site Preparation						
Clearing and Grubbing	1	LS	$1,500.00	$1,500		
Irrigation						
Demonstration Equipment	4	EA	$800.00	$3,200		
Inground Irrigation	15,957	SF	$1.20	$19,148		
Grading						
Rough Grading	919	CY	$15.00	$13,785		
Finish Grading	22,700	SF	$0.10	$2,270		
Drainage						
Subsurface Infrastructure	1	LS	$2,000.00	$2,000		
Structures - Entries						
Pergolas and Arbors	1	LS	$10,552.00	$10,552		
Retaining Walls	125	LF	$45.00	$5,625		
Fountains	2	EA	$1,250.00	$2,500		
Fencing	135	LF	$25.00	$3,375		
Benches	35	LF	$300.00	$10,500		
Ornamental Focal Points	47	LF	$25.00	$1,175		
Boulders	22	EA	$225.00	$4,950		
Concrete Seating (Amphitheatre) 18"wide	150	LF	$100.00	$15,000		
Concrete Seating (Pond Area) 24"wide	8	LF	$115.00	$920		
Utilities						
Electrical Wiring	1	LS	$6,000.00	$6,000		
Security Lighting- Fixtures	18	EA	$200.00	$3,600		
Outlets	6	EA	$250.00	$1,500		
Signage						
Interpretive Signage	8	EA	$300.00	$2,400		
Donor / Entry Signage	1	EA	$1,000.00	$1,000		
Hardscape						
Walkway (Main Circulation) DG	3967	SF	$3.00	$11,901		
Paving (Interior) Patios	1695	SF	$5.00	$8,475		
Removable Bollard	2	EA	$90.00	$180		

Budget Summary and Breakdown - Water Efficient Landscape Demonstration Garden						
Submittal - Feb. 6, 2001						*Page 2*
Planting						
Amendments	15,957	SF	$0.23	$3,670		
Header Board	2,818	SF	$4.00	$11,272		
Turf	2469	SF	$0.50	$1,235		
Groundcover Flats (12"oc)	1967	SF	$0.35	$688		
5 Gallon Plants	900	EA	$20.00	$18,000		
15 Gallon Trees	17	EA	$125.00		2,125	STF, FORPD
24" Box Trees	10	EA	$250.00	$2,500		
36" Box Trees	5	EA	$450.00	$2,250		
Bark Mulch (3")	15,957	SF	$0.35	$5,585		
Construction Plans & Specifications						
Landscape Architecture	1	LS	$19,000.00	$19,000		
Landscape Design					3,000	FOWD, FORPD
Miscellaneous						
Office supplies, photocopying, mailing, etc.					1,000	UC
Maintenance 60 Days(Entries Only)	22,700	SF	$0.06	$1,362		
Subtotal				$197,118	12,076	
Contingency (10%)				$19,712		
Total Direct Costs				$216,830		
Indirect Costs @ 10%				$21,683	27,074*	UC
TOTAL COSTS				**$238,513**	**$39,150**	

Matching Funds Sources:
STF = Sacramento Tree Foundation
FOWD = Fair Oaks Water District
FORPD = Fair Oaks Recreation & Park District

*UC portion indirect costs @ 21.3% plus 11.3% waived indirect costs on request from DWR



Fair Oaks Horticultural Center seeks to pique the interest of the average homeowner with displays of water efficient landscapes. Garden areas relate to the size of typical backyards and highlight effective, attractive landscapes requiring little artificial irrigation.

Architectural conservation methods are demonstrated. The important positioning of trees for shading to reduce evaporation is exhibited. Methods of rainwater retention to reduce erosion and encourage percolation to groundwater systems are shown. Paving and overhead structures demonstrate solar regulation to the environment. Plants featured require minimal irrigation. Water is incorporated into the garden respectfully with fountains and pools requiring minimal water amounts.

The belief is that visits to this demonstration garden will encourage homeowners to participate individually for the global goal of water conservation.

California Native Garden

The use of rock and gravel in this garden mimics the flow of water, bringing to mind a cooling stream. This seasonal streambed holds rainwater, reducing impacts on regional storm water systems. California native plants, naturally drought resistant, are host to local butterflies and birds. A pergola and large trees offer a shady setting to view the garden.

Mediterranean Garden

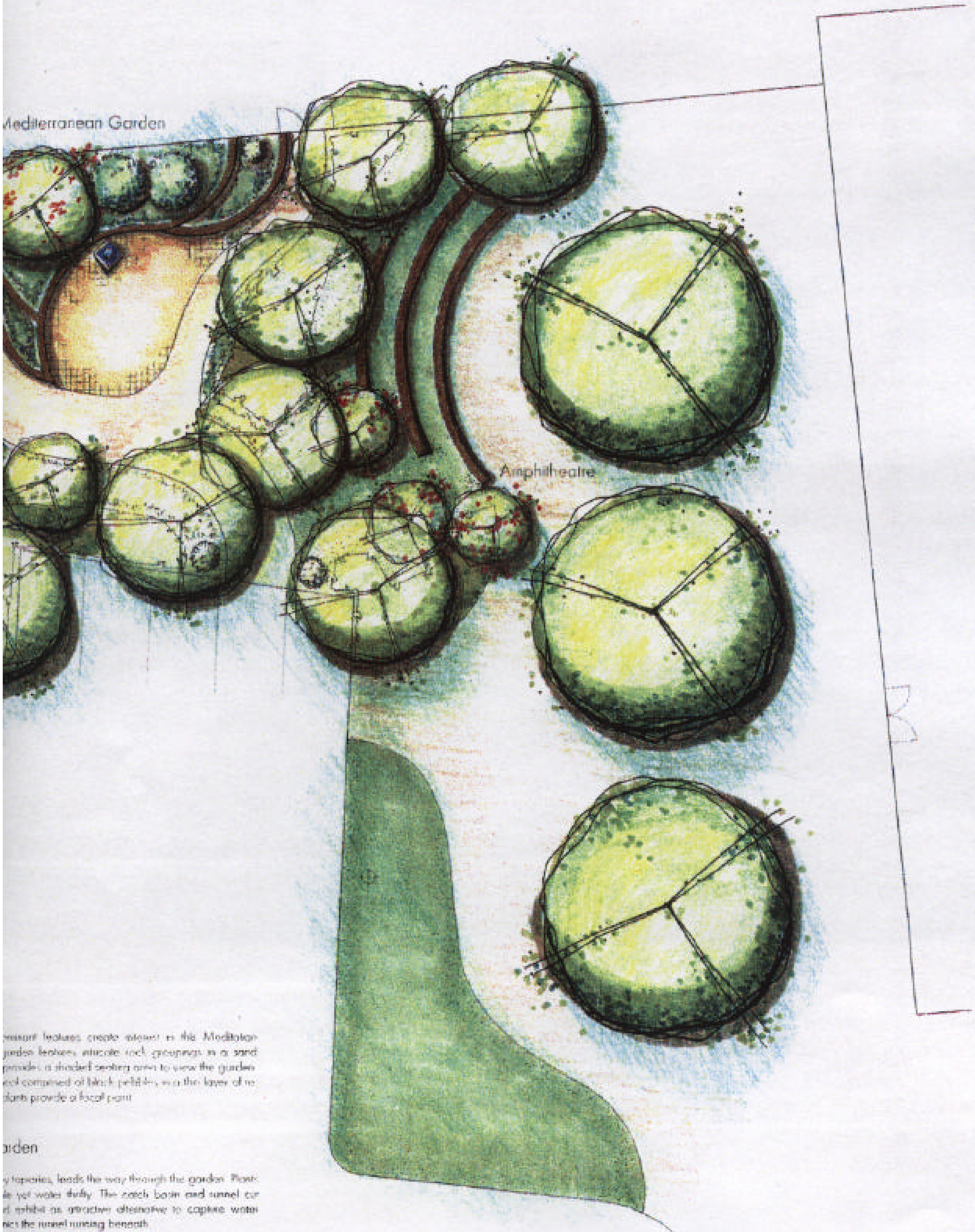
Mediterranean plants adapt well to the Central Valley environment. They are drought resistant, very textural, and available in a wide color range. This garden features these captivating plants, which will flourish in the homeowner's garden. The focal point is a water conserving, low flow fountain, adding the sound and cooling affect of water.

Meditation Ga

Two separate areas
Garden. The entry
raised. An overhead
The path opens to a
circulating water wh

Common Varie

A circular route, high
are those commonly
through the central
ranch. The patio's su



...ornament features create interest in this Meditation ...garden features intricate rock groupings in a sand ...provides a shaded seating area to view the garden ...ed comprised of black pebbles in a thin layer of re... plants provide a focal point

...arden

...y topiaries, leads the way through the garden. Plants ...le yet water thrifty. The catch basin and runnel cur... ...d exhibit as attractive alternative to capture water ...nics the runnel running beneath

QUADRIGA
Landscape Architecture and Planning, Inc.
Sacramento, CA

FAIR OAKS HORTICULTURAL CENTER

LAYOUT PLAN

REVISED

REVISED

REVISED

DATE

PROJECT NO.

DRAWN BY

L1.1